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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/450,584	11/30/1999	SHIGERU TSUKIMURA	046601-5034	7883

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EXAMINER	
GARCIA, GABRIEL I	

ART UNIT	PAPER NUMBER
2625	

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04/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/450,584

Applicant(s)

TSUKIMURA, SHIGERU

Examiner

Gabriel I. Garcia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 10 recites the limitation "**the black area**" in lines 4 and 5. There is insufficient antecedent basis for this limitation in the claim. It is not clear whether the same black area is added black color material and black material. Clarification or correction is required. Independent claims 19 and 28 have similar problems.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 10-14, 17-19-23 and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Coleman (6,259,536)

With regard to claim 10, Coleman teaches an image forming device (e.g. fig. 7), comprising: a receiver (210) that receives image data including a plurality of color areas and black area (e.g. abstract), determining part that determines a first amount which is an amount of black material to be applied to the black area (e.g. see fig. 12) col. 9, lines 51-66, see also claim 20) and a second amount which is an amount of color materials to be applied to the black area (e.g. see fig. 10), the determining part determining each of the first and second amount based on density of the black area (e.g. col. 2, lines 35-67); and an output part that outputs the first and second amounts to the black area (e.g. fig. 5, 6, 10 and 12).

With regard to claims 11 and 12, Coleman further teaches wherein the output part outputs the second amount to the black area after the first amount is output to the black area, and the amounts being more than zero (e.g. figs. 10 and 12).

With regard to claim 13, Coleman further teaches the output part outputs the first and second amounts to the black area being positioned on a recording medium including a paper (see figs 5, 6 and 11).

With regard to claim 14, Coleman further teaches wherein the determining part determines the second amount regardless of a background of the black area in the image data (see abstract and fig. 11).

With regard to claim 17, Coleman further teaches an edge detector that detects an edge of the black area, wherein, the determining part determines a third amount which is an amount of the color materials to be applied to a periphery of the edge, and the output part outputs the third amount to the periphery of the edge (e.g. col. 7, lines 19-33).

With regard to claims 18-23 and 26-28, the limitations of claims of claims 19-23 and 26-28 are covered by the limitations of claims 1-14, 17 and 18.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15-16 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman (6,259,536) as applied to claim(s) 10 and/or 19 above and in further view of Dermer et al. (U.S. Patent Number 5,313,570).

Regarding claims 15, Coleman discloses the device discussed above in claim 1, and further teaches that the output part is based upon primary colors of black, yellow, magenta and cyan (see abstract), and an amount of each color material of the Y, M, C is output to the black area (column 6, lines 13-38). However, Coleman does not specifically teach if the amount of each color material of the Y, M, C is output to the black area in a range of 10 to 40% (percentage by weight) of the amount of black material.

Dermer discloses an image processing device (see Fig. 1) comprising an input part to which image data represented by a plurality of colors including black is input (see Fig. 1), a detector that detect boundary areas in the image data (see abstract), and an output part that adds color materials, except a black material, of a predetermined amount to the detected area regardless of contents of the image data in a background of the area and outputs the color materials and the black material (column 19, line 8-column 20, line 54). Further, Dermer teaches that the output part is based upon primary colors of black, yellow, magenta and cyan, and an amount of each color material of the Y, M, C is output to the black area in a range of 10 to 40% (percentage by weight) of the amount of black material (column 19, line 8-column 20, line 54, and seen in Fig. 24, whereby the output part outputs Y, M, C materials in any specified range, included within the range of 10 to 40% percentage by weight).

Coleman & Dermer are combinable because they are from the same field of endeavor, being printing systems that process images having input data with a plurality of colors. At the time of the invention, it would have been obvious to a person of

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ordinary skill in the art to use the range of color material indicated by Dermer within the system of, Coleman. The suggestion/motivation for doing so would have been that Coleman's system would be capable of printing more colors, since different combinations of colors, as well as tints and degradés, can be achieved by varying the weight percentages of each ink, as recognized by Dermer in column 19, lines 8-26. Therefore, it would have been obvious to combine the teachings of Dermer with the system of Birnbaum to obtain the invention as specified in claim 10.

Regarding claim 15, Coleman and Dermer disclose the device discussed above in claim 10, and Coleman further teaches of a reduction unit that reduces the amount of the color material of the Y, M, C, keeping the amount of the black material in case a total amount of the color materials of K, Y, M, C exceeds a predetermined value (e.g. figs. 10 and 12).

With regard to claims 24-25, the limitations of claims 24-25 are covered by the limitations of claims 14 and 15 above.

Conclusion

6. Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel I. Garcia whose telephone number is (571) 272-7434. The Examiner can normally be reached Monday-Thursday from 7:30 AM-6:00 PM. The fax phone number for this group is 571-273-8300.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.


Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system Status information for published applications may be obtained from either Private **PAIR** or Public **PAIR**. Status information for unpublished applications is available through Private **PAIR** only. For more information about the **PAIR** system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private **PAIR** system, contact the Electronic Business Center (**EBC**) at 866-217-9197 (toll-free).

Gabriel I. Garcia

Primary Examiner

April 22, 2007 .


GABRIEL I. GARCIA
PRIMARY EXAMINER